

[ABSTRACT OF THE DISCLOSURE]

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A plurality of triangle column shaped protrusion are formed on a lower substrate. The protrusions make at least one pair and is formed of insulating layers and a semiconductor layer forming TFTs. Pixel electrodes are formed on the protrusions made of ITO (indium tin oxide) or IZO (indium zinc oxide). The pixel electrodes have opening patterns and the opening patterns expose one of the paired protrusions. An alignment layer is formed on the pixel electrodes. An upper substrate having a common electrode and an alignment layer faces the lower substrate. A liquid crystal layer having negative dielectric anisotropy is disposed between the upper and lower substrates. When a voltage difference is applied between the two electrodes, domains distinguished by their liquid crystal alignment are formed by the opening patterns and the protrusions.

[REPRESENTATIVE FIGURE]

Fig. 4

[KEY WORDS]

vertical alignment, domain division, opening pattern, protrusion, fringe field